the original

Alsynite

shatterproof

translucent
fiber glass
panels

miracle material

for
modern
design

A.I.A. FILE NO. 26-A-9

Alsynite is a totally *new kind* of building panel . . . a *light transmitting* material that is *shatterproof* and *feather-light*, that can be *sawed* and *nailed*, and *applies exactly like corrugated metal.* Alsynite can be used to advantage in all types of structures. It replaces glass for many regular applications and *has many new architectural* uses never *practical before*. Its possibilities are limitless . . . every day brilliant new uses are being developed by leading architects and builders. The photos printed here give just a hint of Alsynite's tremendous potential. In the past few years, several million square feet of Alsynite have been used. It is being installed all over America and abroad . . . including extensive use by the U. S. Government.

JC 3004-82890

In corrugated and flat panels . . . seven beautiful colors.

greenhouse

luminous ceiling

sidewall

partitions

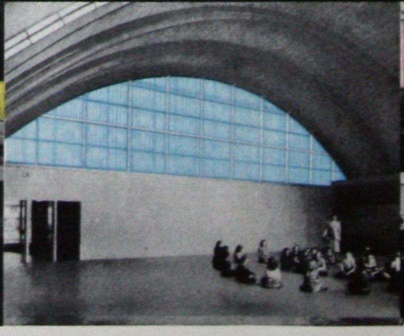
translucent • shatterproof • feather-light

sign

roof

fence

gymnasium



TC JD97-B2850

Alsynite

TRANSLUCENT FIBER GLASS PANELS

5-

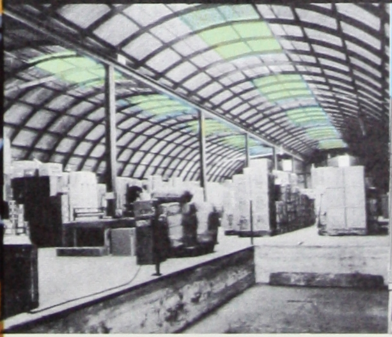
for modern design

residential... Alsynite for patio roofs, window walls, partitions, skylights, sun and wind shelters, awnings, shower stalls, cupboard doors, movable screens...

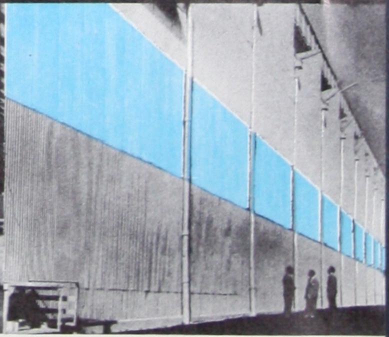
commercial... Alsynite for store fronts, office partitions, luminous ceilings, decorative effects, general daylighting, screens, displays...

industrial... Alsynite for unlimited daylighting ... skylights, sidewalls. No special framing needed. Nests with and installs like corrugated metal with 30% to 80% savings. Use flat Alsynite in standard sash.

skylight



sidewall



Alsynite data:

ALSYNITE COMPANY OF AMERICA
MAIN OFFICE — SAN DIEGO 9, CALIFORNIA
PLANTS:
PACIFIC BEACH, CALIF. — PORTSMOUTH, OHIO

DISTRIBUTORS IN PRINCIPAL CITIES

Standard Sizes —

2⅝″ corrugation —width 26″, 34″, 40″
length 8′, 10′, 12′
Also 27½″ x 8′ 4″ and standard sheets for Quonsets.

1¼″ corrugation — 26″ x 8′ 0″

4.2″ corrugation —width 42″
length 8′, 10′, 12′

2.67″ x ⅞″ deep corrugation
—width 35″
length 8′ 0″

Flat panels —width 26″, 34″
length 4′, 8′
Also standard flat sizes for glazing steel sash.

Weight — Approximately 8 oz. per sq. ft.

Thickness — .060

Other patterns and sizes of corrugated and flat ALSYNITE made on special order.

Colors —

Lite green, leaf green, opal, aqua, maize, rose, moonglow. Special colors produced on order.

Shatter Resistance —

Simulated hail test using solid ice pellets averaging in size ¾″ x 1″ — 60 MPH impact without failure (14 lbs. of pellets used per sq. ft.); localized crazing with no appreciable damage to panel.

Light Transmission and Diffusion —

ALSYNITE panels transmit up to 75% as much light as clear glass (depending upon color). Special ALSYNITE panels are available with light transmission up to 85%-95% of clear glass.

In interpreting the above data, it must be emphasized that the useful light derived from ALSYNITE panels is actually much greater than that obtained through clear glass. This is due to the highly efficient action of ALSYNITE in diffusing transmitted light.

HERCULES
CONSTRUCTION COMPANY
LIMITED
NEW ADDRESS
STATION ROAD,
PICKERING, ONT.

Greenhouse Covering —

A four year report has been completed on an experimental ALSYNITE greenhouse under the direction of Dr. C. H. Muller, Research Associate, Santa Barbara Botanic Garden. This report is conclusive in that over this four year testing period, ALSYNITE has proven to be perfectly satisfactory for the covering of plant growth structures and a suitable replacement for glass. Minimum framework and maintenance along with ALSYNITE shatterproof qualities are outstanding advantages.

Strength —

Tensile (ASTM Method D-638) — 10,000-15,000 PSI.

Flexural (ASTM Method D-790) — 20,000-30,000 PSI.

Loading —

Recommended maximum span — 4′ 0″. Typical test:

32″ wide x 4′ 0″ span—2⅝″ corrugation. Fastened with 6 penny nails with neoprene washers every 3rd corrugation on ends and every 12″ on sides. Loaded to 150 lbs. per sq. ft. without failure. When load was removed—instantaneous rebound over 90%; subsequent return to approximate original position.

Many other tests on 2⅝″ and other size corrugations have been made. Copies sent on request.

Thermal Expansion and Stability —

ALSYNITE has a linear coefficient of thermal expansion of approximately $2 \times 10^{-5}/^\circ F$. Its expansion and contraction characteristics are therefore similar to Aluminum.

ALSYNITE can be subjected alternately to temperatures as low as —20°F and in excess of 200°F without change in physical properties.

Thermal Conductivity —

ALSYNITE conducts approximately 60% as much heat as glass; it has a K factor of 3 (BTUs/hour/sq. ft./inch thickness/F°).

Acid Resistance —

ALSYNITE is highly resistant to all forms of acid attack; for example, samples tested in 30% sulfuric acid and in 3% sulfuric acid in accordance with ASTM method D-543-43 showed no gain or loss in weight. (This method calls for 7 days' immersion.) No appreciable change in appearance of sample.

Chlorine gas and hydrogen sulfide fumes have virtually no effect on ALSYNITE.

ALSYNITE has been tested in many other common substances, such as salt water (3%), ammonium hydroxide (3%), carbon tetrachloride, ethyl alcohol (95%), and water, for seven days without measurable change.

Fire Resistance —

Burning particles falling on the surface, such as sparks, cinders, discarded matches, cigarettes, etc., will not ignite ALSYNITE.

Although ALSYNITE is not fire proof, the fiber glass base component is of course fire proof and acts as a barrier to the passage of flame through the material. In one test, the bottom surface of a horizontal piece was subjected to a gas flame and did not ignite until the surface of the ALSYNITE reached a temperature of 835°F. Subsequent to ignition, the temperature on the bottom side of the panel reached a maximum of 1260°F. After the resinous component ceased burning on the under side, a temperature of 1150°F was maintained for 5 minutes by means of the gas flame. At no time during the experiment did the top side of the sample specimen ignite, and the maximum temperature recorded there was 575°F.

Test reports available on request.

Important Note—

A *self-extinguishing* ALSYNITE panel is being developed by our laboratories and is expected to be in production shortly after the date of the printing of this publication. This new type of ALSYNITE is rated as self extinguishing according to ASTM test Method D-635-44. Write for latest details.

Permanence —

ALSYNITE is rotproof, mildewproof, and is not subject to attack by fungi or vermin, termites and other insect pests. ALSYNITE has excellent dimension stability, and will not warp, crack, buckle or craze. ALSYNITE is the original translucent glass fiber panel and has been used in countless installations for over a period of five years without a single record of failure.

How to Install —

You can nail, screw or bolt ALSYNITE in place. *It can be installed in the same manner as corrugated metal.* Use lead headed nails or neoprene washers for weather tightness along with ALSYNITE'S own translucent mastic. Fasteners of rust-proof metals should be used. Use same methods as for glass when installing flat ALSYNITE in window panes. Cuts easily with any metal cutting hand or power saw, shears or abrasive power tool. Corrugated contour moldings of metal, rubber and asphalt are available for ALSYNITE installations.

How to Specify —

ALSYNITE translucent structural panels produced with 2 oz. glass fiber mat and light stabilized resins only, having a minimum flexural strength of 20,000 PSI and a minimum tensile strength of 10,000 PSI and capable of withstanding loads in excess of 100 lbs. per sq. ft. on 4 foot spans, as manufactured by ALSYNITE Company of America.

No. 952—Litho in U.S.A.